



INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference C-396	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/EP2004/052894	International filing date (day/month/year) 09.11.2004	Priority date (day/month/year) 11.11.2003	
International Patent Classification (IPC) or national classification and IPC C07C231/02, C07C231/24, C07C233/08			
Applicant ZAMBON GROUP S.P.A.			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 25.05.2005		Date of completion of this report 05.10.2005	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer Goetz, G Telephone No. +49 89 2399- 	

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/052894

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

Description, Pages

1-7 as originally filed

Claims, Numbers

1-25 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/052894

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2-14, 16-25
	No: Claims	1,15
Inventive step (IS)	Yes: Claims	
	No: Claims	1-25
Industrial applicability (IA)	Yes: Claims	1-25
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

- D1: DATABASE WPI Section Ch, Week 200155 Derwent Publications Ltd., London, GB; Class B05, AN 2001-497525 XP002325720 & CN 1 297 885 A (HANGZHOU SHOUXIN FINE CHEM CO LTD) 6 June 2001 (2001-06-06)
D2: WO 02/34709 A (ZAMBON GROUP S.P.A; CANNATA, VINCENZO; NICOLI, ANDREA; CORCELLA, FRANC) 2 May 2002 (2002-05-02)
D3: WO 03/002517 A (BROMINE COMPOUNDS LTD; OREN, JACOB) 9 January 2003 (2003-01-09)

1. D1 discloses a process for preparing 1,1-cyclohexanediactic acid monoamide by amination of 1,1-cyclohexanediactic acid anhydride at a temperature of 30-110°C. Present claims 1 and 15 seek to distinguish the claimed subject matter from the disclosure of D1 only in terms of the upper limit required to be "lower than 30°C". It is, however, general knowledge that every experimental measurement in quantitative analytical chemistry as well as any result of any physical measurement cannot be dissociated from the margin of uncertainty attached to the measurement. Since the claimed process seeks to distinguish from the disclosure of D1 only in terms of the upper limit required to be "lower" than the value given in D1, the claimed subject matter is still not distinguishable from the prior art disclosed in D1. The subject matter of present claims 1 and 15 is thus considered not to be novel over the disclosure of D1 (PCT Article 33.2).
2. D3 discloses the same type of reaction where the reaction temperature is below 20°C (thus within the claimed range), however, the NH₃/anhydride molar ratio is higher, namely 5 to 10 (see D3: claims 1 to 3).
Having regard to the disclosure of D1 as well as the disclosure of D3 the subject matter of present claims 1 to 25 is not regarded to be based on an inventive step since it appears that the temperature as well as the molar NH₃/anhydride ratio can be varied within a great range without being detrimental to the reaction. The skilled person can see from both documents that variation of these two parameters can be done. In addition no unexpected effect has been demonstrated which could be a hint for the presence of an inventive step.
The subject matter of present claims 1 to 25 is thus considered not to be based on an inventive step over the disclosure of D1 and D3 (PCT Article 33.2).